



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of: )  
Ralf RESKI et al. ) Atty. Docket No.: STURK 0003  
Serial No. 10/089,450 ) Group Art Unit: Unknown  
Filed: March 29, 2002 ) Examiner: Unknown  
For: METHOD FOR PRODUCTION )  
OF PROTEINACEOUS )  
SUBSTANCES )  
Date: June 12, 2002

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**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D. C. 20231

Sir:

This is an Information Disclosure Statement with regard to the above-identified application. Copies of each of the documents listed in the attached Form PTO/SB/08A are attached.

Also attached is a copy of the Search Report issued on September 7, 2001 in the corresponding **international** application. Since all of the documents cited herein were cited in said Search Report, it is believed that the relevance of each document cited is clear from the Search Report.

Accordingly, no further comment in regard to the disclosures of these documents is believed to be required.

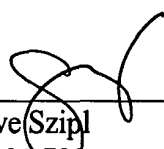
Serial No. 10/089,450

It is respectfully requested that the attached documents be considered and officially cited, and that a copy of the Form PTO/SB/08A, initialed by the Examiner to indicate that the documents have been considered, be returned to the applicants.

It is believed that the present Information Disclosure Statement complies with the requirements of 37 C.F.R. §§ 1.97-8, but if a fee should be required, authorization is hereby given to deduct from Deposit Account No. 50-1281.

Respectfully submitted,

GRIFFIN & SZIPL, PC

  
\_\_\_\_\_  
Joerg-Uwe Szimpl  
Reg. No. 31,799

GRIFFIN & SZIPL, PC  
Suite PH-1  
2300 Ninth Street, South  
Arlington, VA 22204

Telephone: (703) 979-5700  
Facsimile: (703) 979-7429  
Customer No.: 24203





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Substitute for form 1449B/PTO		<b>Complete if Known</b>			
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/089,450		
		Filing Date	March 29, 2002		
		First Named Inventor	Ralf RESKI et al.		
		Group Art Unit	Unknown		
		Examiner Name	Unknown		
Sheet	2	of	5	Attorney Docket Number	STURK 0003

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	G	E. Reinhard und W. Kreis, Kultivierung von pflanzlichen Zellen im Bioreaktor, Bio. Engin., 5, S. 135-136 (1989)	
	H	BORISJUK, N.V., ET AL.: "Production of recombinant proteins form plant root exudates" NATURE BIOTECHNOLOGY, Bd. 17, Mai 1999 (1999-05), Seiten 466-469, XP002169838;	
	I	N. Ferrara et al., The vascular endothelial growth factor family of polypeptides, J. Cell. Biochem., 47, S. 211-218 (1991)	
	J	H.-P. Mühlbach, Use of plant cell cultures in biotechnology, Biotechnol. Annu. Rev., 4, S. 113-176 (1998)	
	K	WEI W S ET AL: "A perfusion air-lift bioreactor for high density plant cell cultivation and secreted protein production" JOURNAL OF BIOTECHNOLOGY,NL,ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, Bd. 50, Nr. 2, 1. Oktober 1996 (1996-10-01), Seiten 225-233, XP004037059 ISSN: 0168-1656;	
	L	DATABASE BIOSIS [Online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; Mai 1999 (1999-05) ZEIDLER MATHIAS ET AL: "Transgene expression in the moss Ceratodon purpureus." Database accession no. PREV19990035631 XP002169839 & JOURNAL OF PLANT PHYSIOLOGY, Bd. 154, Nr. 5-6, Mai 1999 (1999-05), Seiten 641-650, ISSN: 0176-1617	
	M	Y. Fujita und M. Tabata, in: Plant tissue and cell culture, plant science; Vol. 3, S. 169, C.E. Green et al. (Eds.), A. R. Liss Inc., New York (1987)	
	N	M. Tabata und Y. Fujita, in: Biotechnology in plant science; S. 207-218, P. Day et al. (Eds.), Academic Press, Orlando (1985)	
	O	M. Jaziri et al., Taxus sp. cell, tissue and organ cultures as alternative sources for taxoids production: a literature survey, Plant Cell Tiss. Org. Cult., 46, S. 59-75 (1996)	
	P	FIREK S ET AL: "SECRETION OF A FUNCTIONAL SINGLE-CHAIN FV PROTEIN IN TRANSGENIC TOBACCO PLANTS AND CELL SUSPENSION CULTURES" PLANT MOLECULAR BIOLOGY,NL,NIJHOFF PUBLISHERS, DORDRECHT, Bd. 23, 1993, Seiten 861-870, XP002033959 ISSN: 0167-4412;	
	Q	REUTTER, K., ET AL.: "Production of a heterologous protein in bioreactor cultures of fully differentiated moss plants" PLANT TISSUE CULTURE AND BIOTECHNOLOGY, Bd. 2, Nr. 3, 1996, Seiten 142-147, XP001002564	

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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PTO/SB/088 (10-01)  
Approved for use through 10/31/2002. OMB 0651-0031  
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 3 of 5

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### OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
R		J. Berlin et al., Genetic modification of plant secondary metabolism: Alteration of product levels by overexpression of amino acid decarboxylases, in: Advances in Plant Biology, Studies in Plant Science, Vol. 4, S. 57-81, D.D.Y. Ryu and S. Furasaki (Eds.), Elsevier, Amsterdam (1994)	
S		A.S. Moffat, High-Tech plants promise a bumper crop of new products, Science 256, S. 770-771 (1992)	
T		J.K.-C. Ma et al., Generation and assembly of secretory antibodies in plants, Science 268, S. 716-719 (1995)	
U		P.C. Sijmons et al., Production of correctly processed human serum albumin in transgenic plants, Bio/Techn., 8, S. 217-221 (1990)	
V		A.-H. Salmanian et al., Synthesis and expression of the gene for human epidermal growth factor in transgenic potato plants, Biotechnol. Lett., 18, S. 1095-1098 (1996)	
W		E. Krebbers und J. Vandekerckhove, Production of peptides in plant seeds, Tibtech., 8, S. 1-3. (1990)	
X		K. Dalsgaard et al., Plant-derived vaccine protects target animals against a viral disease, Nat. Biotech., 15, S. 248-252 (1997)	
Y		N.S. Magnuson et al., Enhanced recovery of a secreted mammalian protein from suspension culture of genetically modified tobacco cells, Prot. Expr. Pur., 7, S. 220-228 (1996)	
Z		M.L. Shuler et al., Bioreactor engineering as an enabling technology to tap biodiversity: The case of taxol., Ann. N. Y. Acad. Sci., 745, S. 455-461 (1994)	
AA		M.G.K. Jones und K. Lindsey, Plant biotechnology, in: Molecular biology and biotechnology, J.M. Walker und E.W. Gingold (Eds.), 2.Aufl., Royal Soc. of Chem., Burlington House, London (1988)	
BB		R. Reski, Zell- und molekularbiologische Untersuchungen der cytokinin-induzierbaren Gewebedifferenzierung und Chloroplastenteilung bei Physcomitrella patens (Hedw.) B.S.G., PhD Thesis, Universität Hamburg (1990); Results published in: Marienfeld et al., Isolation of nuclear, chloroplast and mitochondrial DNA from the moss Physcomitrella patens, Plant Science, 61, 235-244 (1989)	

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Sheet 4 of 5

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### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

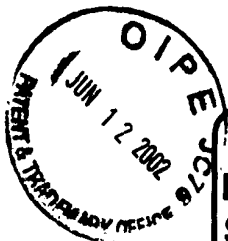
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	CC	N.W. Ashton et al., Analysis of gametophytic development in the moss, Physcomitrella patens, using auxin and cytokinin resistant mutants, Planta, 144, S. 427-435 (1979)	
	DD	E. Wilbert, Biotechnologische Studien zur Massenkultur von Moosen unter besonderer Berücksichtigung des Arachidonsäurestoffwechsels, PhD Thesis, Universität Mainz (1991)	
	EE	H. Rudolph und S. Rasmussen, Studies on secondary metabolism of Sphagnum cultivated in bioreactors, Crypt. Bot., 3, S. 67-73 (1992)	
	FF	N. Ferrara und W.J. Henzel, Pituitary follicular cells secrete a novel heparin-binding growth factor specific for vascular endothelial cells, Biochem. Biophys. Res. Commun., 161, S. 851-858 (1989)	
	GG	G. Martiny-Baron und D. Marmé, VEGF-mediated tumor angiogenesis: A new target for cancer therapy, Curr. Opin. Biotechnol., 6, S. 675-680 (1995)	
	HH	B.L. Fiebich et al., Synthesis and assembly of functionally active human vascular endothelial growth factor homodimers in insect cells, Eur. J. Biochem., 211, S. 19-26 (1993)	
	II	D. Mohanraj et al., Expression of biologically active human vascular endothelial growth factor in Yeast, Growth factors, 12, S. 17-27 (1995)	
	JJ	Miyazono et al., Purification and properties of an endothelial cell growth factor from human platelets, J. Biol. Chem., 262, S. 4098-4103 (1987)	
	KK	Wilting et al., A morphological study of the rabbit corneal assay, Anat. Embryol., 183, S. 1167-1174 (1991)	
	LL	S. Kondo et al., The shortest isoform of human vascular endothelial growth factor/vascular permeability factor (VEGF/VPF121) produced by Saccharomyces cerevisiae promotes both angiogenesis and vascular permeability, Biochim. Biophys. Acta, 1243, S. 195-202 (1995)	
	MM	G. Siemeister et al., Expression of biologically active isoforms of the tumor angiogenesis factor VEGF in Escherichia coli, Biochem. Biophys. Res. Commun., 222, S. 249-255 (1996)	

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	NN	T.N. Belev et al., A fully modular vector system for the optimization of gene expression in Escherichia coli, Plasmid, 26, S. 147-150 (1991)	
	OO	R. Töpfer et al., A set of plant expression vectors for transcriptional and translational fusions, Nucleic Acids Res., 15, S. 5890 (1987)	
	PP	R. Töpfer et al., Versatile cloning vectors for transient gene expression and direct gene transfer in plant cells, Nucleic Acids Res., 16, S. 8725 (1988)	
	QQ	Fiebich et al., Synthesis and assembly of functionally active human vascular endothelial growth factor homodimers in insect cells, Eur. J. Biochem., 211, S. 19-26 (1993)	
	RR	A.R. Jefferson et al., Assaying chimeric genes in plants: The GUS gene fusion system, Plant Mol. Rep., 5, S. 387-405 (1987)	
	SS	R. Reski und W.O. Abel, Induction of budding on chloronemata and caulonemata of the moss, Physcomitrella patens, using isopentenyladenine, Planta, 165, S. 354-358 (1985)	

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